

FIG. 2A

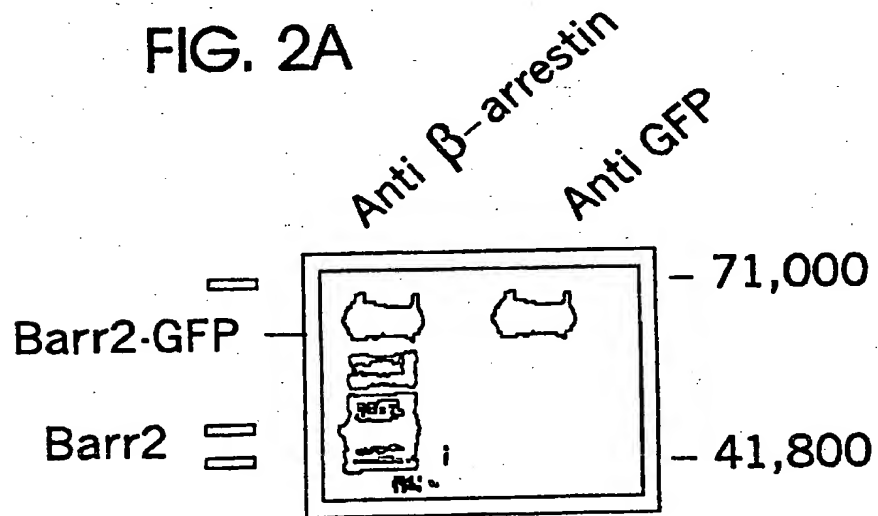
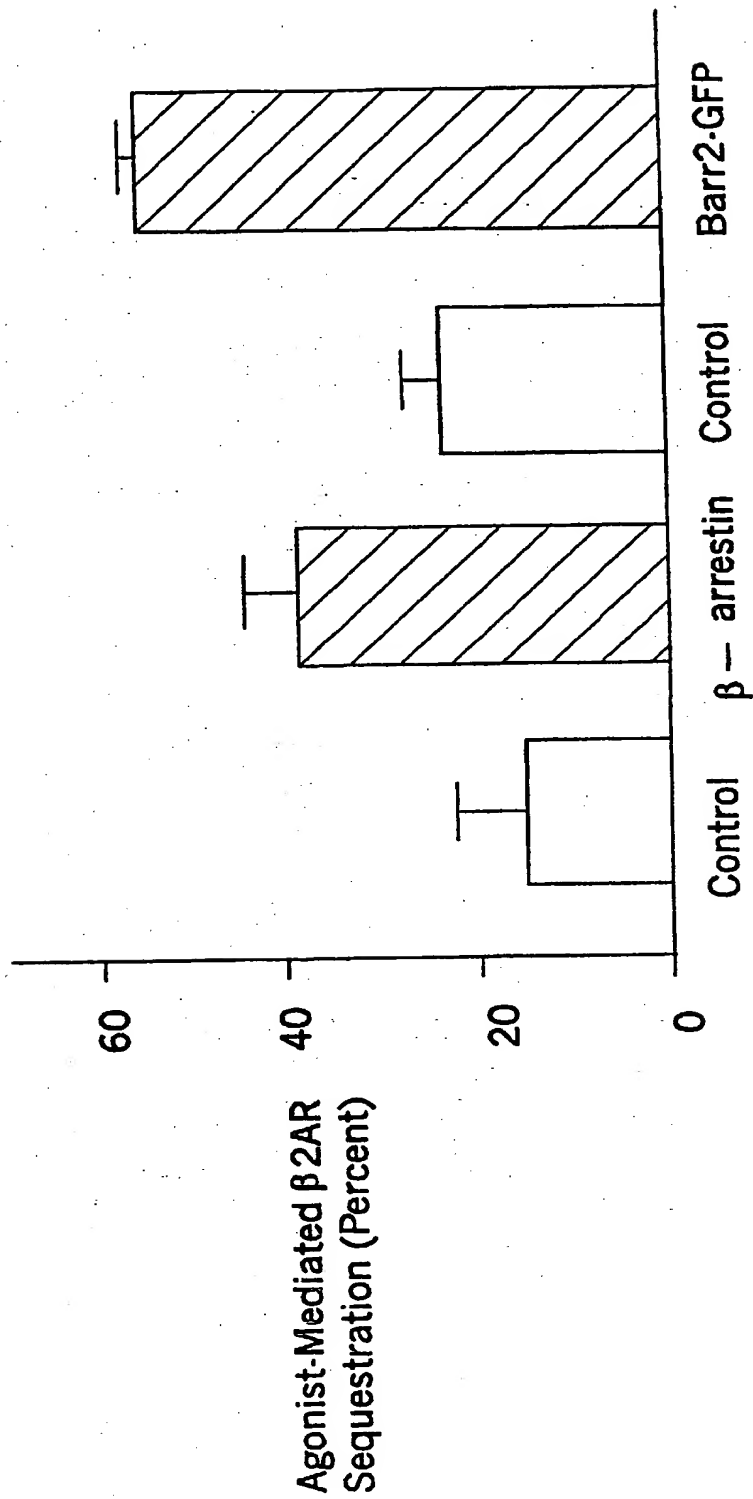


FIG. 2B



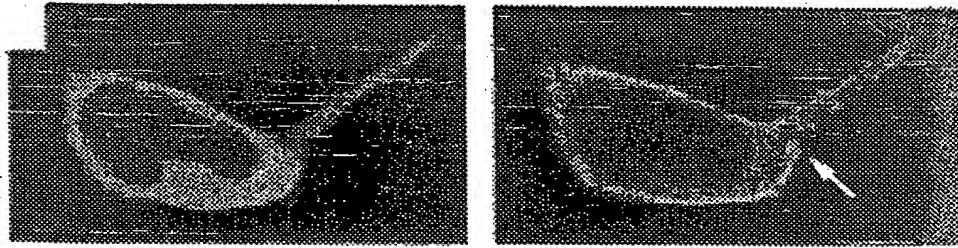


FIG.3A

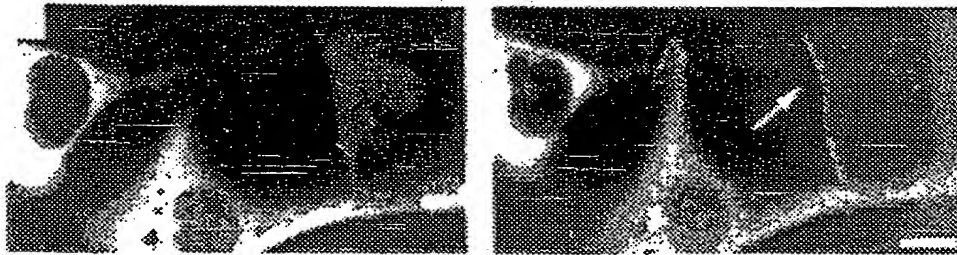


FIG.3B

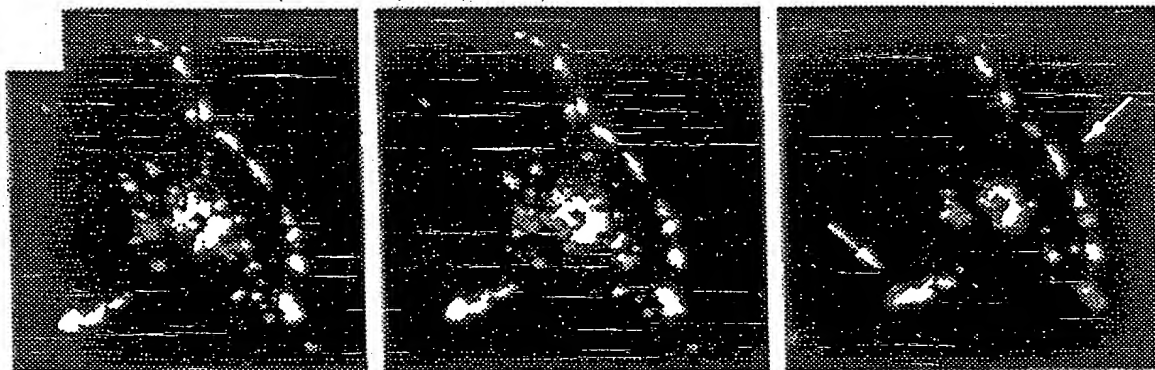


FIG.4A

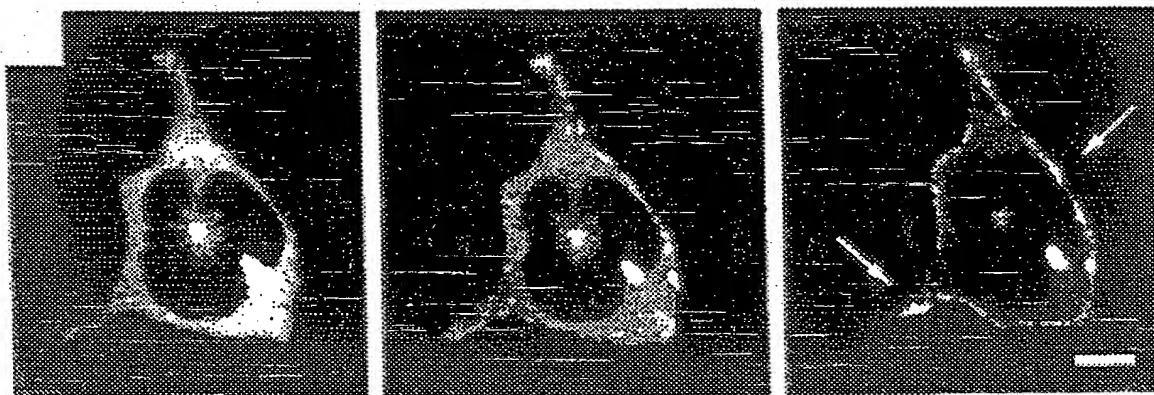
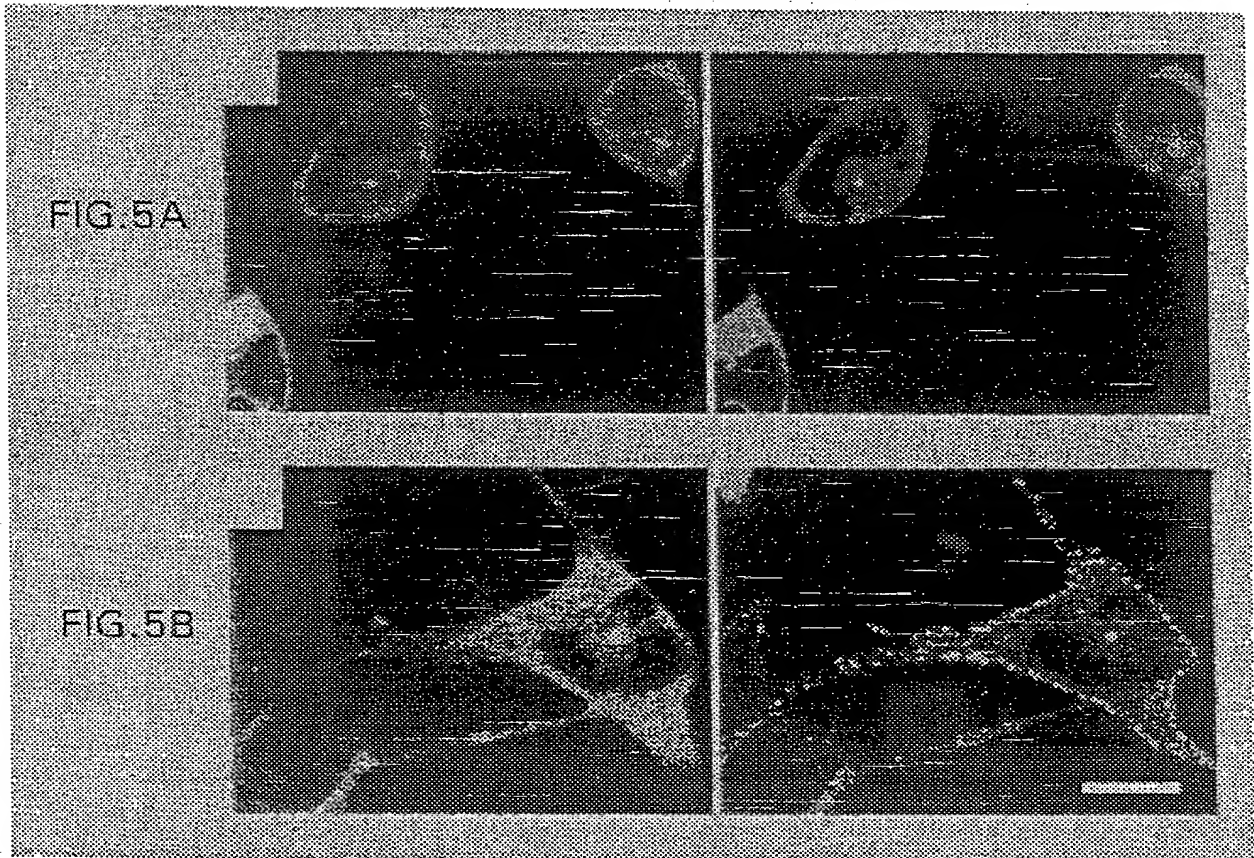


FIG.4B



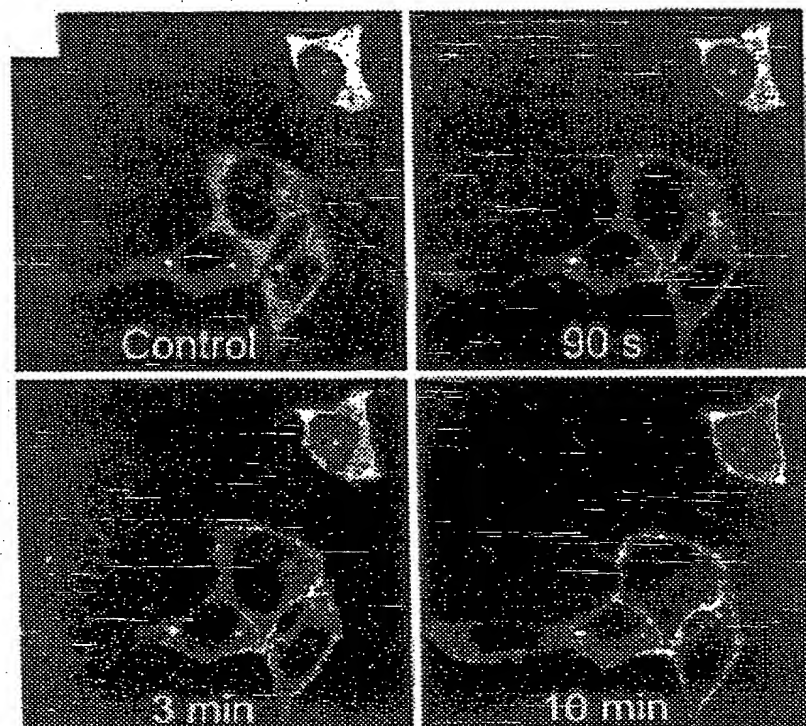


FIG.6A

FIG. 6B

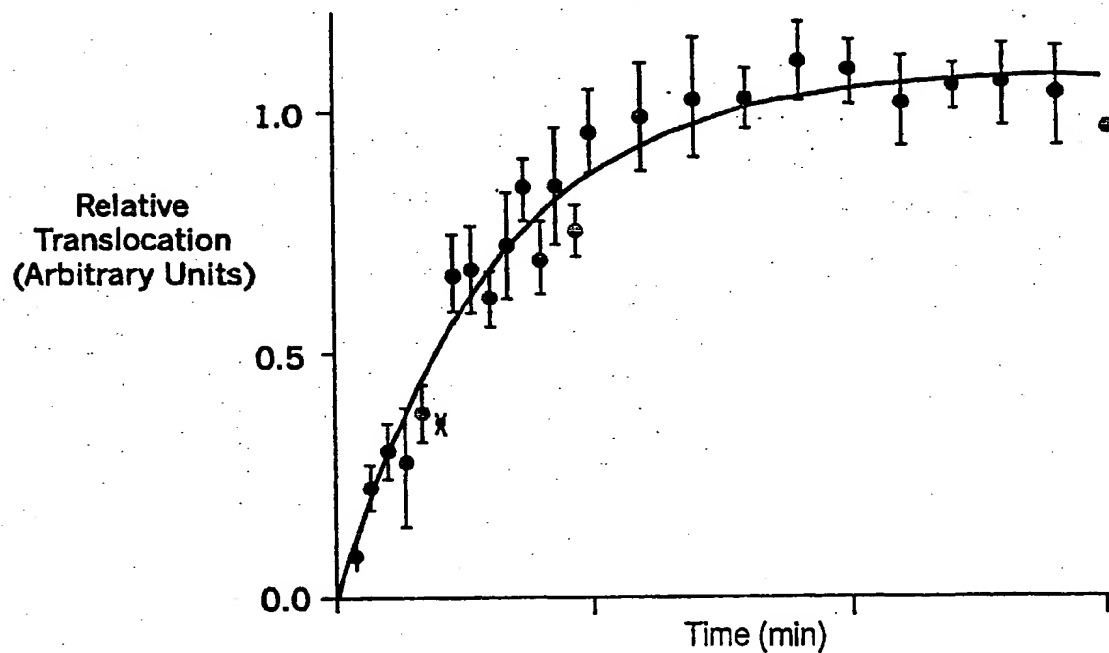
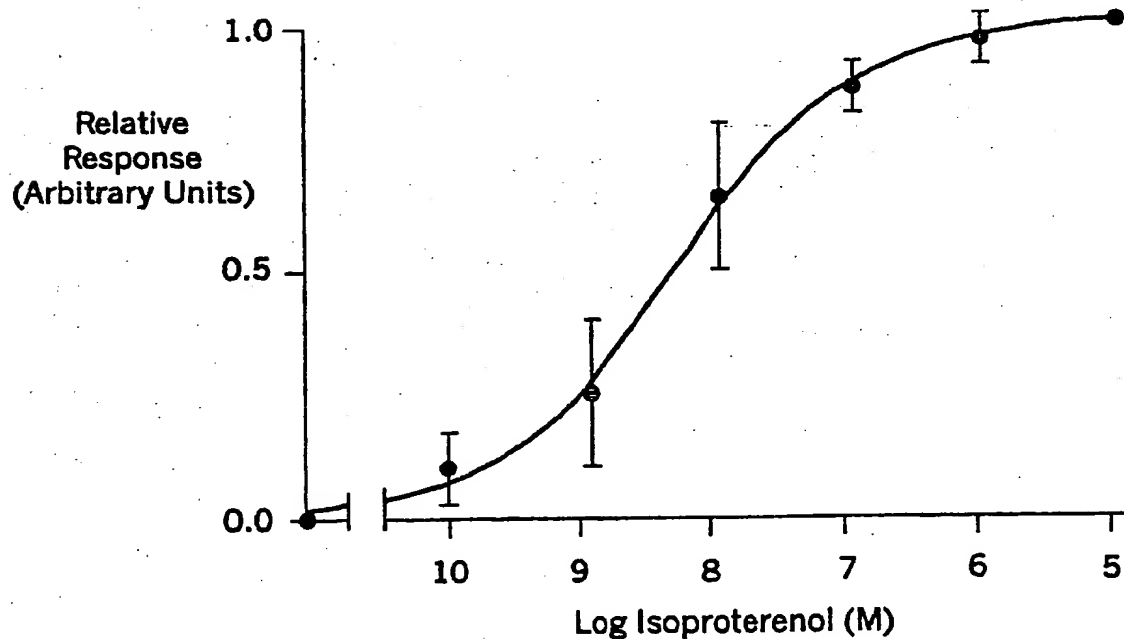


FIG. 6D



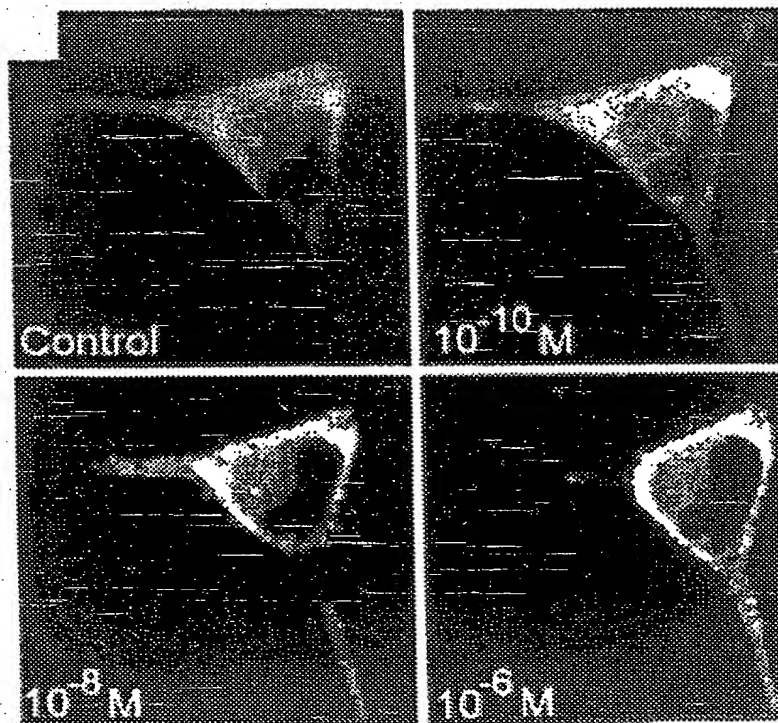


FIG.6C



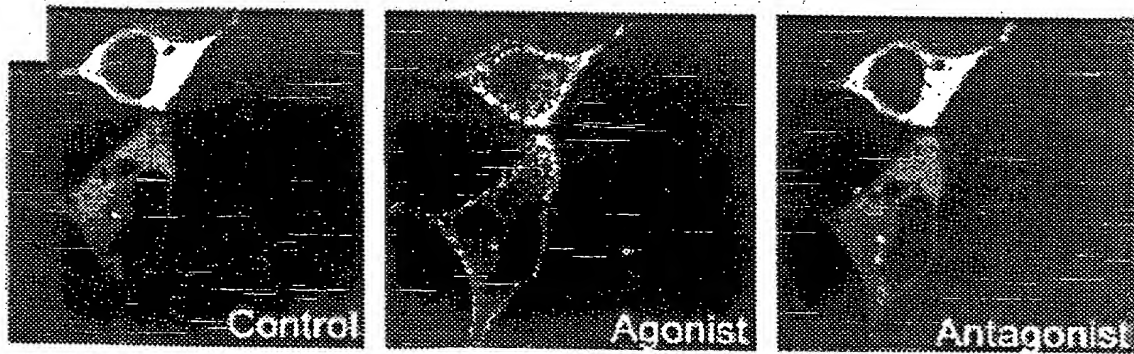


FIG.6E

# $\beta$ -Arrestin 2 KO Mice

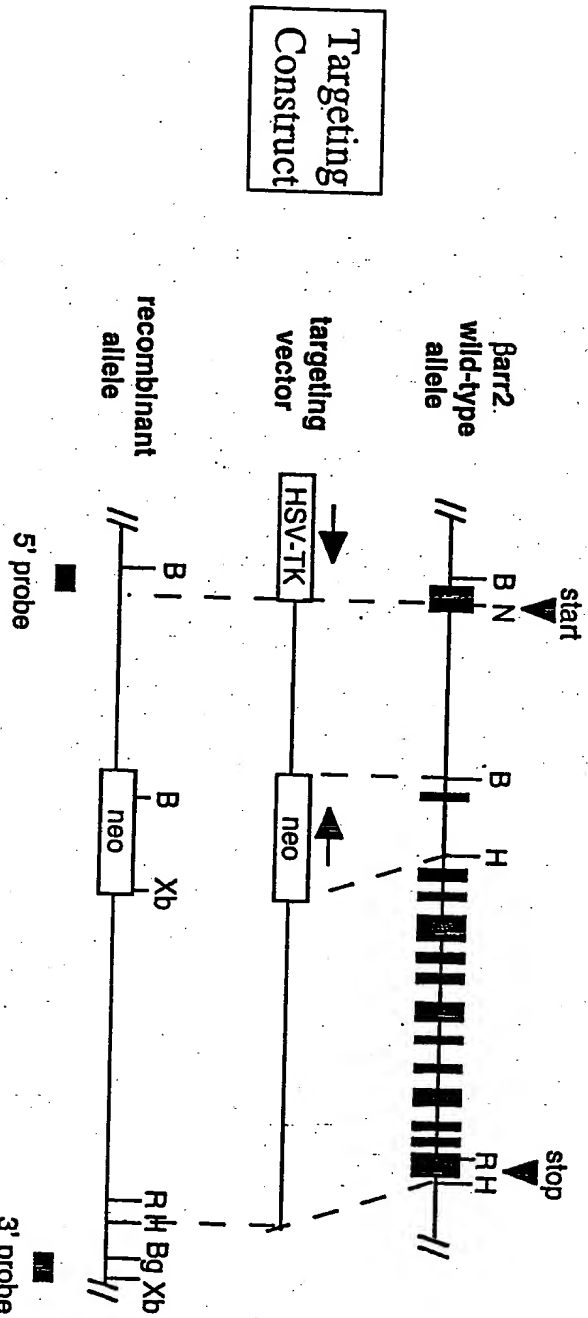


FIG. 7A

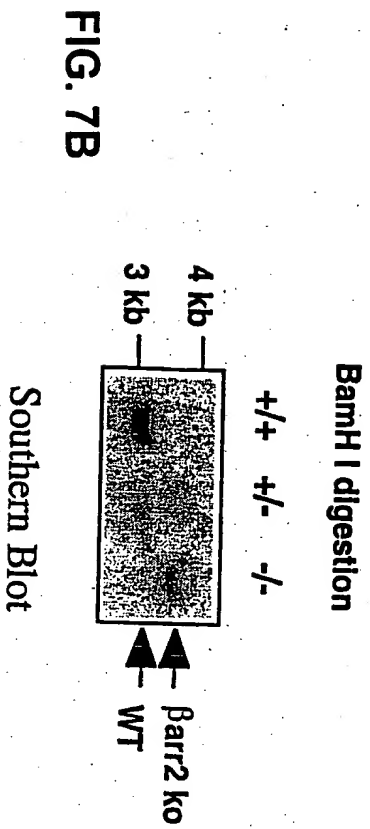


FIG. 7B

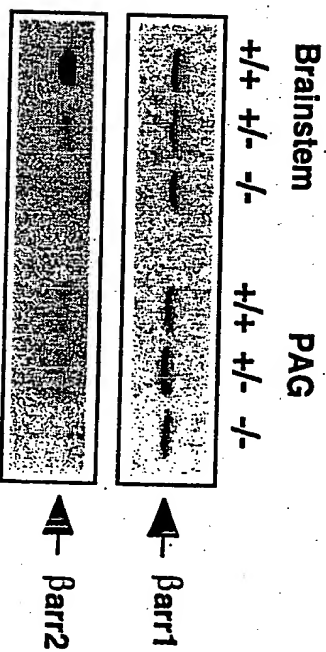
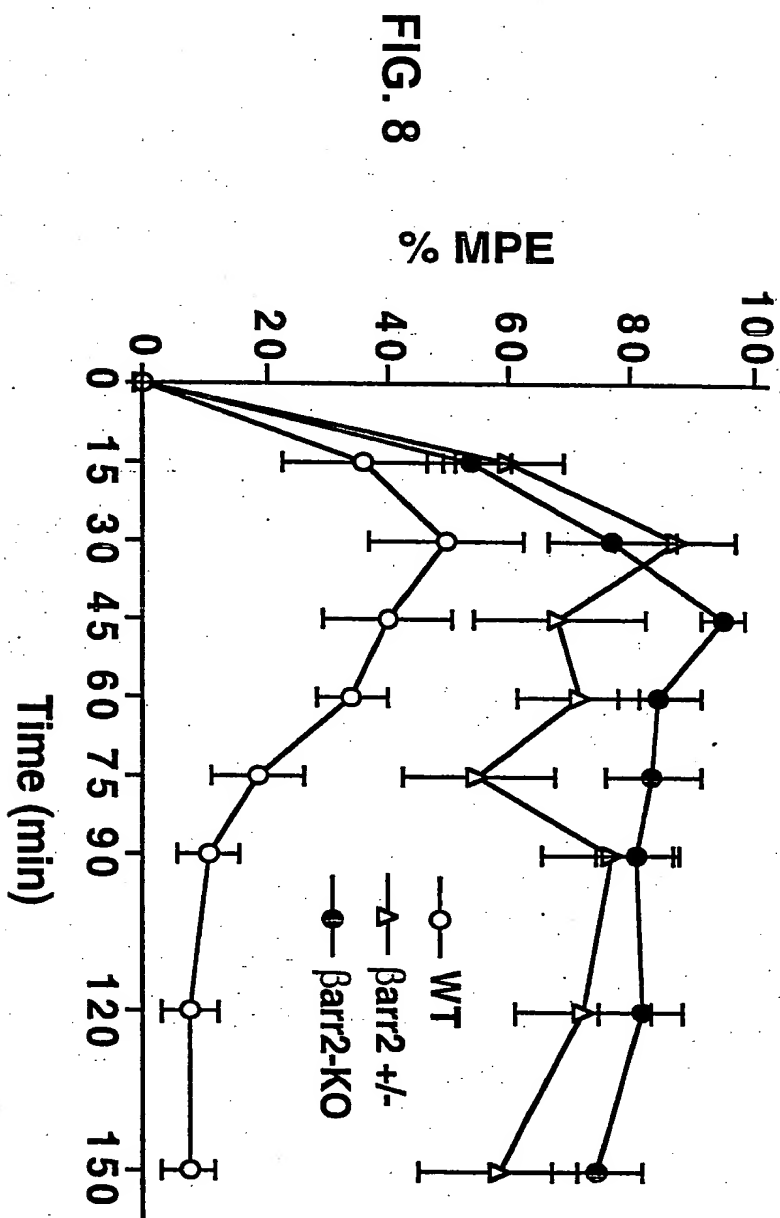


FIG. 7C

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# Morphine-Induced Antinociception



Hotplate (56°C, 30 sec  
cutoff) paw-withdrawal  
latency after morphine  
(10mg/kg, s.c.)

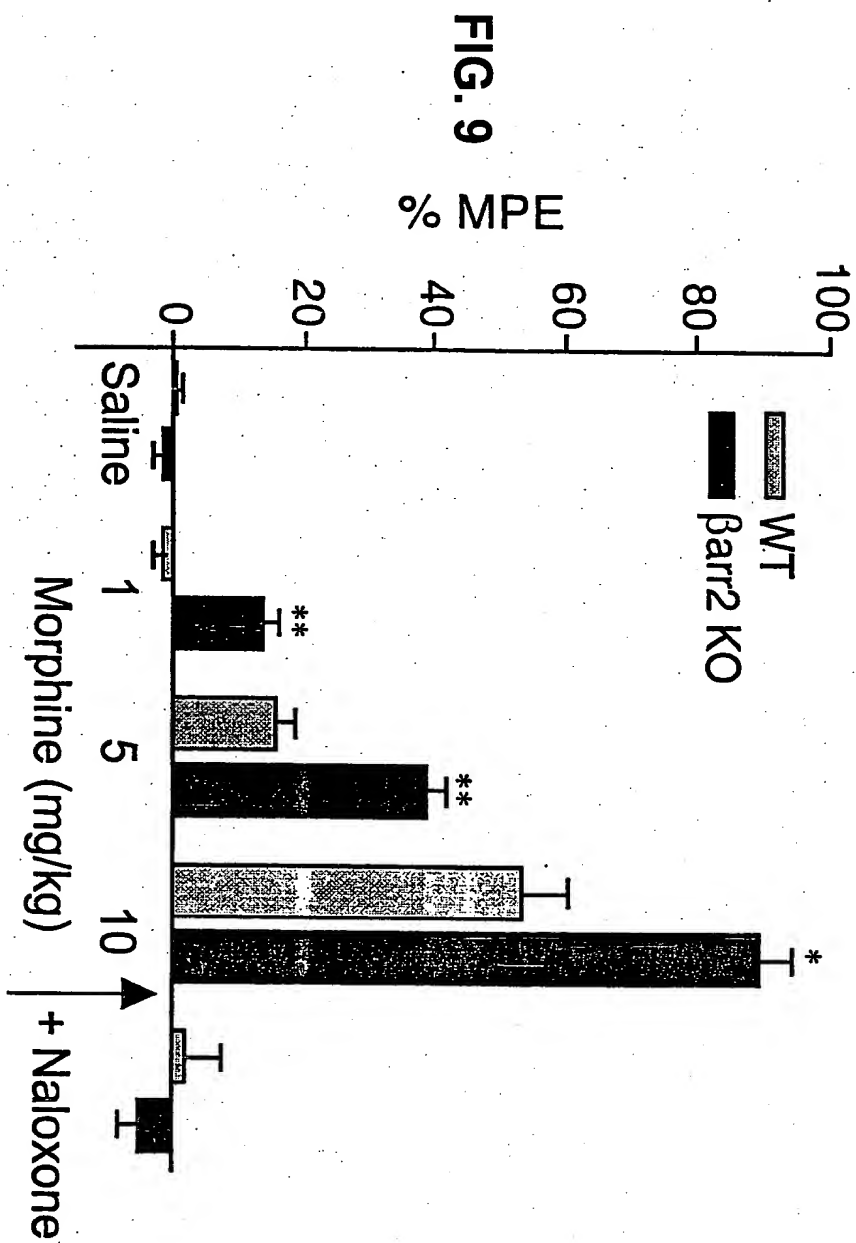
% Maximum possible effect (MPE) =  $100\% \times \frac{\text{Response time} - \text{Basal time}}{\text{30 sec} - \text{Basal time}}$

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(30 sec - Basal time)

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# Morphine-Induced Antinociception



Hotplate (56°C, 30 sec cutoff) paw-withdrawal latency after morphine (30 min, s.c.) and naloxone (2.5 mg/kg, 10 min, s.c.).

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# Morphine-Induced Hypothermia

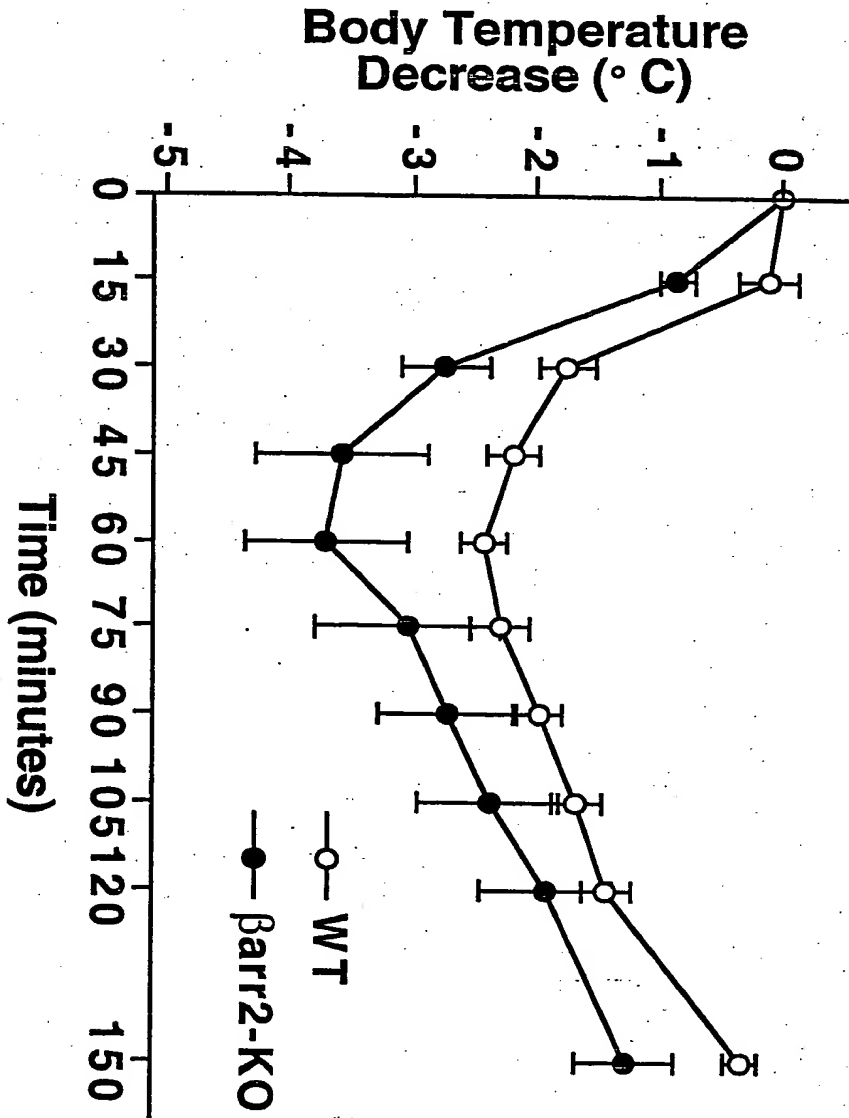
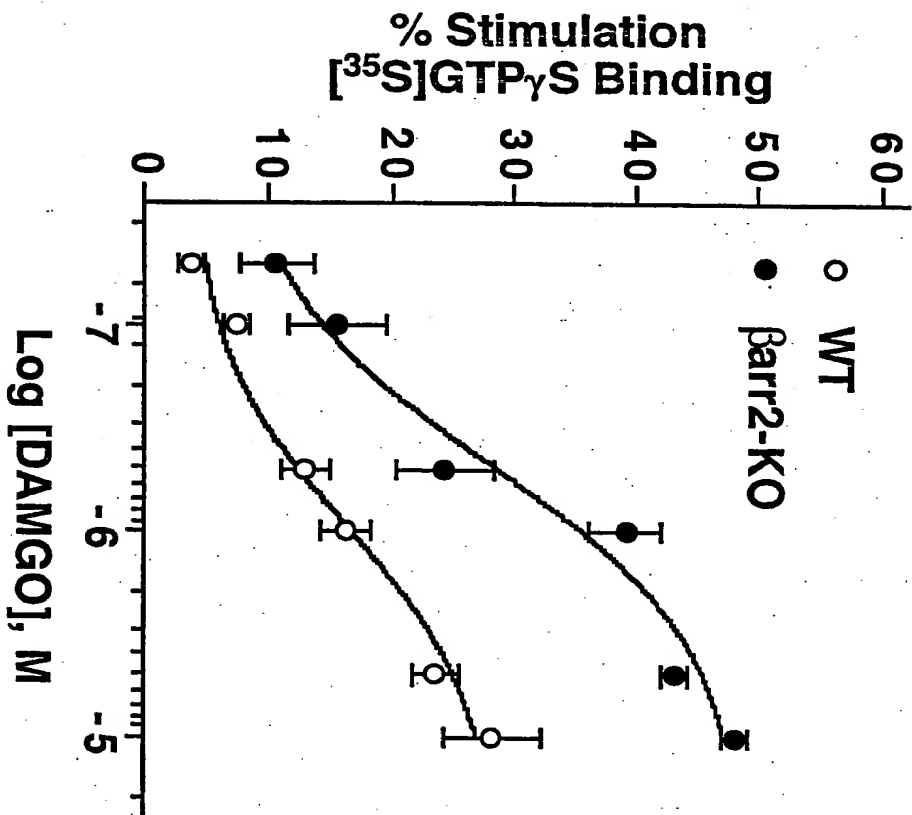


FIG. 10

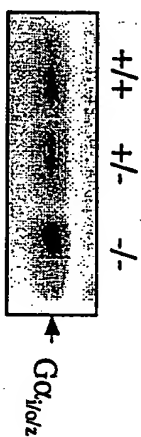
Rectal temperature after morphine (10mg/kg, s.c.)

# [<sup>35</sup>S]GTP<sub>γ</sub>S Binding in Periaqueductal Gray Membranes

FIG. 11



G $\alpha_{i/o/z}$  Protein levels  
in PAG membranes



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